



The Development of Virtual Training Environment for Computer Parts Installation Process

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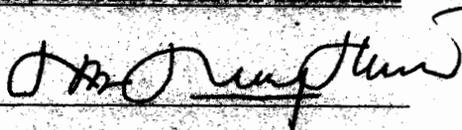
THE DEVELOPMENT OF VIRTUAL TRAINING ENVIRONMENT
FOR COMPUTER PARTS INSTALLATION PROCESS

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Abstract

Virtual Reality-based training system (VRTS) is an advanced computer-assisted training system using Virtual Reality (VR) technology. VR is a computer generated environment which gives the illusion of three dimensions. It provides a true 3D interface to a range of computer applications. The essence of virtual reality is immersion, which is the ability to immerse the computer user in a computer generated experience.

In this project, I proposed the video based interaction in the distributed virtual training environment. To make the interaction possible, I will develop a video based using 3D software to guide customer for parts installation. The use of 3D of 3D virtual training will allow the organization to help customers to install parts in the computer will be easier and cost saving.

The proposed video will allow cost efficient video based interaction, and the discussion regarding the advantages of virtual training , limitations and possible future research on the video based interactions in the virtual environment.

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LIST OF ABBREVIATIONS

VR	Virtual Reality
VE	Virtual Environment
VTE	Virtual Training Environment
SPSS	A Software for Statistic Calculation
VRTS	Virtual Reality-based Training System
TAM	Technology Acceptance Model
MR	Mixed Reality
TRA	Theory of Reasoned Action

CHAPTER 1

INTRODUCTION

1.0 Background of the Study

Virtual Reality (VR) is the use of computer graphics system in combination with various displays and interface devices to provide the effect of immersion in the interactive 3D computer generated environment.

Research and development in VR and Virtual Environment (VE) applications can be found in many places all over the world. According to Wikipedia, VE is a “computer-based simulated environment intended for its users to inhabit and interact via avatars” (http://wapedia.mobi/en/Virtual_world). This habitation usually is represented in the form of two or three-dimensional graphical representations of humanoids (or other graphical or text-based avatars)” (Oliviera et. al., 2000). VE has many potential applications, including education, training, design and prototyping, entertainment, rehabilitation, and research. The utility of VE for many applications increases the spatial judgments which is similar to VE as in the real world (Creem-Regehr et. al, 2006). Mixed reality (MR) refers to incorporation of virtual computer graphics object into a real three dimensional scene or alternatively the conclusion of real worlds element into a virtual environment.

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